REMARKS

In accordance with the foregoing, the independent claims have been amended to recite a substrate assembly for a plasma display panel ("PDP") or a PDP--and which PDP is more specifically a surface discharge type AC color plasma display panel. Further, correction of minor typographical errors in a few of the claims and amendments deleting a recitation of, variously, "without interruption" and "uninterrupted" and like phrases have been made.

No new matter is introduced by the foregoing and, accordingly, approval and entry of the foregoing amended claims are respectfully requested.

STATUS OF CLAIMS

Claims 1-3, 5-30 and 32-48 are pending herein and all thereof are rejected.

PAGE 2: REJECTION OF CLAIMS 1, 5, 19, 20 AND 22-28 FOR ANTICIPATION UNDER 35 USC § 102(b) BY AMANO (JP 59-108240)

The rejection is respectfully traversed.

A "surface discharge type AC plasma display panel", as shown in Fig. 8 of the present application, has a pair of display electrodes (X, Y) on the surface of a first substrate, and an electric discharge occurs along that surface between each such pair of electrodes. An address electrode, i.e., a third electrode, is formed on the surface of a second substrate, spaced from the first substrate; addressing discharges are produced between the address electrode and one of the pair of display electrodes (X, Y) on the surface of the first substrate. Thus, a total of three electrodes is required for the surface discharge type PDP.

Amano's PDP, by contrast, employs only two electrodes, an electrode formed on the surface of a first substrate 1 being an "anode electrode" and an electrode formed on the surface of a second substrate 2 being a "cathode electrode." Amano thus relates to a DC type PDP.

The PDP of Amano thus is essentially different from, and does not suggest, the "surface discharge type AC color plasma display panel" of the present, claimed invention.

As above noted, the independent claims have been amended in the preambles of each

to recite the claimed structure as relating to a surface discharge type AC plasma display panel--which, alone, suffices to distinguish patentably over Amano. Accordingly, the rejection of above specified claims 1, 5, 19, 20, 22 and 28 is submitted to be without basis and the same should be withdrawn.

ACTION AT PAGE 10: REJECTION OF CLAIMS 7-9 AND 21 FOR OBVIOUSNESS UNDER 35 USC § 103(a) OVER AMANO

In these rejections, the Examiner concedes that "Amano fails to disclose the limitation..." as to width and height values--but asserts that "discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 205 USPQ 215 (CCPA 1980)." On that basis, the Examiner contends that the involved limitations are merely discoveries "within the skills of the art" and hence not patentable under § 103.

In relation to claim 21, the Action concedes that Amano fails to disclose the recited gas mixture and the recited "one mole %"--but asserts that the same would be within the skill of the art.

The rejection is respectfully traversed.

The Examiner contends, in the Action on page 10 line 10 et seq., concerning claims 7-9 and 21, that discovering an optimum width of ribs involves only routine skill in the art, again citing In re Boesch, 205 USPQ 215 (CCPA 1980).

Contrary to the Examiner's contention, the ribs in a surface discharge type AC PDP of the present invention have a function of separating the discharges along parallel pairs of display electrodes. By contrast, in the DC type PDP of Amano, the electrodes of the respective, opposing substrates are disposed in crossing relationship and accordingly, the ribs have only the function of preventing inadvertent or undesired color mixture.

More particularly, in the surface discharge type AC PDP of the present invention, a function of the ribs, of cutting off coupling of discharges between cells along parallel display electrode pairs, is critical, to provide a satisfactory operating margin. Selection of rib width in accordance with the present invention, as one example, is not a simple matter of design choices in the art and clearly is not suggested by the DC PDP structure disclosed by Amano.

RESPONSE TO EXAMINER'S REQUEST REGARDING TRANSLATION OF AMANO FROM LINE 16 OF LOWER RIGHT COLUMN TO THE UPPER RIGHT COLUMN ON PAGE 3

The requested translation is herewith supplied:

To make the plasma display panel as shown in Fig. 2 or 4 a three primary color-based color display medium can be attained by applying three primary color phosphors to a plurality of lattice-like regions of matrix structured-discharge electrodes in lines or zigzag patterns. for example, a red phosphor may be (Y, Cd) BO_3-Eu, a green phosphor may be $ZnSiO_4Mn$, and a blue phosphor may be Y_2SiO_3Ce.

In the examples of Figs. 2 and 4, a phosphor (6) may be structured to cover only the surface of anode electrode (3). When the surface area of the anode is sufficient, the same effect, as that above-described, can be obtained.

EFFECT OF THE INVENTION

In the present invention, since regions including the surface of the anode electrode is covered with a conducting phosphor layer, it is not necessary to apply a phosphor to a region excluding the anode electrode and, therefore, production preciseness is not required and manufacture is easy as well as the surface area of phosphor applied increases to improve the phosphor brightness.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a partially broken perspective view of a conventional plasma display device, Fig. 2 shows a partial cross section of a DC plasma display panel of an example of the present invention, Fig. 3 shows a partial enlarged view of phosphor of Fig. 3, and Fig. 4 shows a partial enlarged view of a modified example of Fig. 2.

In the figures, (1) denotes a front glass substrate, (2) a rear glass substrate, (3) an anode electrode, (4) a cathode electrode, (5) a barrier rib, (6) a phosphor, (7) a gas space, and (8) a transparent conducting layer.

ACTION AT PAGE 11: REJECTION OF CLAIMS 10-18 FOR OBVIOUSNESS UNDER 35 USC §103(a) OVER AMANO IN VIEW OF SHINADA ET AL. (JP 03-077238)

ACTION AT PAGE 14: REJECTION OF CLAIM 30 FOR OBVIOUSNESS UNDER 35 USC § 103(a) OVER AMANO IN VIEW OF ASANO ET AL. (USP 5,182,489) AND FURTHER IN VIEW OF SHINADA ET AL. (USP 4,725,255)

ACTION AT PAGE 15: REJECTION OF CLAIM 33 FOR OBVIOUSNESS UNDER 35 USC § 103(a) OVER AMANO IN VIEW OF SANO TAKEN FURTHER IN VIEW OF WADA ET AL. (USP 4,692,662)

ACTION AT PAGE 17: REJECTION OF CLAIM 47 FOR OBVIOUSNESS UNDER 35 USC§ 103(a) OVER AMANO IN VIEW OF SHINADA AND FURTHER IN VIEW OF ASANO (USP 5,182,489)

The foregoing rejections are respectfully traversed.

SANO (USP 5,182,489)

Sano discloses a surface discharge type AC PDP, but the cell structure of Sano is essentially different from that of the present invention. In Sano, the cell structure is formed by the glass plate as mentioned in col. 4, lines 37-40.

Sano thus is essentially different from the cell structure of the present invention, in which barrier ribs are formed on a substrate, as a unitary body.

It is difficult to substitute the anode-side substrate of Amano for the rear substrate of Sano, since the DC type PDP of Amano and the AC type PDP of Sano are essentially different, and there is no motivation to do so. Moreover, even if the substitution could be accomplished and were operational, which applicants do not concede, the resulting structure would not be that claimed herein and the same would not operate as provided by the claimed structure herein.

SHINADA ET AL. (USP 4,725,255)

Shinada et al. discloses a DC type PDP comprising a cathode electrode 30 and anode electrode 50. Although Shinada et al. shows a structure in which a transparent undercoating layer is formed under arranged electrodes, there is no motivation to apply the structure to an AC type PDP.

WADA (USP 4,692,662)

Wada discloses blackening on the top of ribs, but the ribs are not a stripe pattern of the present invention as disclosed and claimed herein.

Wada also relates to a DC type PDP and there is no suggestion to apply that structure to an AC type PDP, as that of the present invention.

SHINODA ET AL. (JP03-77238)

Shinoda et al. discloses patterning a phosphor layer to expose a portion of an address electrode, and does not disclose a pattern of a "color phosphor linear strip extending continuously", in accordance with the present invention.

Although the Examiner asserts at page 11, last four lines of the Office Action, that Shinoda et al. discloses a variation of the distance between the top of ribs and the surface of a second substrate, within the claim limitation of the present invention, it is respectfully submitted that Shinoda et al. does not include any such disclosure.

LACK OF *PRIMA FACIE* BASIS OF OBVIOUSNESS OF THE PRIOR ART COMBINATIONS RELIED UPON

It is submitted that the Action is devoid of any demonstration of *prima facie* obviousness of the prior art combinations relied upon therein.

There is no evidentiary support in the record for the findings of the Examiner as to the obviousness of the prior art combinations and the Examiner's reliance thereon is contrary to the USPTO memorandum from Stephen G. Kunin of February 21, 2002 entitled: "PROCEDURES FOR RELYING ON FACTS WHICH ARE NOT OF RECORD AS COMMON KNOWLEDGE OR FOR TAKING OFFICIAL NOTICE", copy enclosed.

See also MPEP 2144.03, which cautions that:

> It would not be appropriate for the Examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well know are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference were recognized as standard in the pertinent art. (Citing *In re Ahlert*, and other Decisions)...
>
> It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principle evidence upon which a rejection was based. (Citing *Zurko*, 258 Fed. 3rd at 1385, 59 USPQ2d at 1697)

(Emphasis in original; insert added)

The Action clearly does not comply with these stringent standards.

CONCLUSION

In accordance with the foregoing, it is respectfully submitted that the Examiner's rejections are contrary to the guidelines of the MPEP and of the Kunin memorandum, as well as being contrary to the court decisions cited in both.

It furthermore is submitted that the pending claims distinguish patentably over the references of record, taken singly or in any proper combination, and that the application is in condition for allowance, which action is earnestly solicited.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8(a)
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450
on Dec 29 20 03
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Date: 12-29-03